

حمل الآن

مجاناً وحصرياً

المراجعة رقم (1)

اختبار شهر نوفمبر

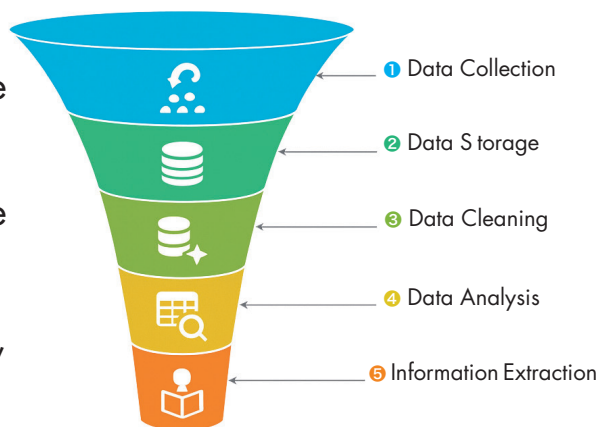


Lesson 4 Big Data and Its Relationship to Artificial Intelligence

- » Big Data is essential for AI to operate and learn.
- » AI also helps process and analyze Big Data to extract value and insights.

Stages of Big Data Processing:

- 1 **Data Collection:** Collecting massive data from multiple sources.
- 2 **Data Storage:** Saving data in large databases or cloud systems.
- 3 **Data Cleaning:** Removing errors, duplication, and incorrect data.
- 4 **Data Analysis:** Using AI and machine learning to analyze data.
- 5 **Information Extraction:** Valuable information is extracted from the analyzed improvements.



Uses of Big Data:

- 1 **Artificial Intelligence:** Designing algorithms that mimic human intelligence (speech, vision, reasoning).
- 2 **Machine Learning & Deep Learning:** Training models to improve predictions (e.g., weather forecasting).
- 3 **Network Monitoring & Cybersecurity:** Detecting threats by analyzing network traffic patterns.
- 4 **E-commerce:** Big data is used for understanding customer behavior, improving recommendations, adjusting prices, and boosting sales.

The Role of Big Data in AI:

1 Improving Accuracy & Performance:

Training on diverse data improves generalization and reduces errors.

2 Enabling Advanced AI Applications:

- **Natural Language Processing (NLP):** Requires massive text datasets for accurate language understanding (such as GPT).

- **Computer Vision:**

Relies on large datasets of images/videos for recognition tasks.

- **Predictive Analytics:**

Identifies patterns in historical data for future predictions.

- **Discovering Hidden Insights:**

Reveals valuable patterns in fields like healthcare for diagnosis and treatment.

Lesson 1 Principles of Designing Professional and Attractive Website Interfaces

User Experience (UX) Design: It focuses on how people use an application or website, ensuring they can easily find what they need, feel satisfied while using it, and enjoy clear interactions.

Importance of UX Design:

- » If the website/app is easy to use, the user will feel satisfied and return.
- » If it is difficult to use, the user may abandon it forever.

Basic Principles of UX Design:

- 1 **Ease of Navigation:** Clear, simple menus make navigation quick and effortless.
- 2 **Clarity:** Information must be easy to understand.
- 3 **Consistency:** Maintain the same style across the website/app.

User Interface (UI) Design: It is the way the website/app/game appears visually:

- Are the colors attractive?
- Are the fonts easy to read?
- Are the buttons clear and usable?

Importance of UI Design: A beautiful, attractive interface creates a positive first impression; a messy design discourages users.

Basic Principles of UI Design:

- 1 **Colors:** Choosing the right colors affects the user's mood.
- 2 **Fonts:** They should be legible and context-appropriate.
- 3 **Layout:** Organizing interface elements logically makes an app or website easy to use.

Lesson 2 Web Page Format

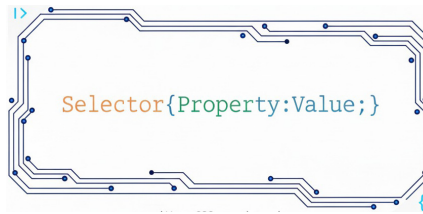
1 From HTML to CSS:

- » HTML describes the content of web pages.
- » Adding formatting to every page was time-consuming and costly.
- » To solve this, W3C developed CSS, which separates formatting from content.
- » CSS controls the formatting of multiple web pages simultaneously.

2 Benefits of CSS:

- » **Time-saving:** Formatting is placed once in a CSS file and applied to multiple HTML pages.
- » **Loading speed:** The browser downloads the CSS file once and reuses it across linked pages.
- » **Ease of modification:** Changing the CSS file updates the formatting of all linked pages automatically.
- » **Improved aesthetics:** Pages become visually organized and attractive.
- » **Improved readability:** Proper fonts and colors make content clearer.
- » **Separation of design and content:** The CSS file controls appearance without modifying HTML structure.
- » **Responsive design:** CSS adapts layouts for different screen sizes (computer, tablet, or mobile).

3 Basic Structure of CSS: General Syntax:



- **Selector:** HTML element(s) to be styled (e.g., body, h1).
- **Property:** Formatting aspect to change (e.g., color, size).
- **Value:** How the property is changed (e.g., blue, 20px).

4 Ways to Add CSS to HTML:

- » **Inline CSS:** It is applied directly to an element.
- » **Internal CSS:** It is used to format individual HTML pages.
- » **External CSS (preferred):** It is best for large websites to unify the design and layout of their pages.

1 Choose the correct answer:

- 1 What is the first stage of big data processing?
 - a. Data storage
 - b. Data cleaning
 - c. Big data collection
 - d. Data analysis
- 2 Which of the following uses of big data relies on understanding customer behavior and improving recommendations using advanced analytics?
 - a. Artificial intelligence
 - b. Machine and deep learning
 - c. Network monitoring and cybersecurity
 - d. E-commerce
- 3 Which of the following is an example of an advanced artificial intelligence application that relies on huge collections of images and videos to train its models?
 - a. Natural Language Processing (NLP)
 - b. Computer Vision
 - c. Big Data Collection
 - d. Task Automation
- 4 Big data helps machine learning algorithms automate tasks in areas such as
 - a. customer service
 - b. logistics
 - c. financial services
 - d. all of the previous
- 5 Removing errors and duplication is called data
 - a. storage
 - b. analysis
 - c. cleaning
 - d. extraction
- 6 Big data storage usually happens in
 - a. clouds
 - b. servers
 - c. the USB
 - d. a or b
- 7 creates algorithms that mimic human intelligence.
 - a. AI
 - b. IoT
 - c. E-commerce
 - d. None of them

- Questions

 - 8 NLP applications require processing
 - a. images
 - b. text datasets
 - c. maps
 - d. audio only
 - 9 A machine learning model trained on more data will usually
 - a. learn slower
 - b. be less accurate
 - c. be more accurate
 - d. forget patterns
 - 10 Predicting customer behavior with AI is called
 - a. cleaning
 - b. extraction
 - c. predictive analytics
 - d. storage
 - 11 Big data improves AI by reducing the
 - a. benefit
 - b. collection
 - c. storage
 - d. overfitting
 - 12 Predicting future weather using big data is an example of
 - a. cybersecurity
 - b. machine learning
 - c. NLP
 - d. cleaning
 - 13 Which of the following examples illustrates the use of inconsistent colors

- 16 What is meant by the principle of consistency in interface design?
 - a. That the shapes and colors of the buttons change on each page.
 - b. That the elements are displayed randomly to attract attention.
 - c. That there is variation in page design to avoid monotony.
 - d. That the interface maintains the same style and shape for the buttons and elements on all pages.
- 17 If an app or website is easy to use, it leads to user
 - a. frustration
 - b. confusion
 - c. satisfaction
 - d. abandonment
- 18 Which of the following is a fundamental principle of User Experience (UX) design?
 - a. Using decorative fonts to attract attention.
 - b. Providing clear and easy navigation for the user.
 - c. Using as many colors as possible.
 - d. Placing as much information on a single page as possible.
- 19 Which of the following is a fundamental principle of User Interface (UI) design?
 - a. Making all buttons the same size and shape.
 - b. Choosing colors that are consistent and pleasing to the eye.
 - c. Providing multiple ways to accomplish the same task.
 - d. Ensuring that all text is unreadable.
- 20 Why is usability important in UX design?
 - a. To make the design look more professional.
 - b. To increase user satisfaction and interaction with the product.
 - c. To reduce the cost of product development.
 - d. To make the product run faster.
- 21 Why is visual appeal important in UI design?
 - a. To make the product easy to use.
 - b. To leave a good first impression with the user.
 - c. To better organize the information.
 - d. To make the product compatible with all devices.

- 22 Which of the following examples illustrates a confusing navigation design?
- A main menu with clear buttons.
 - A search bar in a prominent location.
 - A list of overlapping, unorganized items.
 - Clear links at the end of the page.
- 23 Interface fonts should be
- complex and decorative
 - small and ornate
 - legible and appropriate to context
 - difficult to read
- 24 Which of the following examples illustrates the use of inconsistent colors in UI design?
- Using simple color gradients.
 - Using many bright, different colors randomly.
 - Using complementary colors from the color wheel.
 - Using white as the primary color with a muted secondary color
- 25 Presenting information in an easy-to-understand way refers to interface
- consistency
 - navigation
 - clarity
 - responsiveness

2 Put (✓) or (X):

- Big data can be stored in large databases, which can be located on servers or cloud systems. ()
- Big data is used to monitor network traffic and analyze patterns to detect security threats and protect systems. ()
- Artificial intelligence technologies help humans process and analyze massive amounts of big data and extract value from it. ()
- The stages of processing and storing big data begin with cleaning the data first to ensure it is error-free before collection. ()

- 5 After analyzing big data, information that can be used to make strategic decisions is extracted. ()
- 6 The lower the quality, volume, and variety of the available data, the greater the ability of machine learning and deep learning models to learn and make accurate predictions and decisions. ()
- 7 Big data helps enable artificial intelligence (AI) to analyze historical data to identify patterns and trends, enabling it to make accurate predictions about future events (predictive analytics). ()
- 8 Artificial intelligence is just a set of theoretical algorithms incapable of learning or providing real value, even with the availability of big data. ()
- 9 Computer vision applications, such as facial recognition, rely on huge datasets of images and videos to train their models. ()
- 10 Real-time big data streams allow artificial intelligence models to continuously learn and adapt to new data. ()
- 11 Big data increases the accuracy and effectiveness of artificial intelligence models by training them on a wide range of scenarios and reducing the problem of overfitting. ()
- 12 Natural Language Processing (NLP) models such as GPT do not need huge text datasets to learn, understand, and generate human language. ()
- 13 One of the stages of big data processing is data cleaning. ()
- 14 Data cleaning means dealing with errors, duplication, or incorrect data. ()
- 15 Data analysis occurs using advanced tools and techniques, such as artificial intelligence. ()
- 16 Big data is not the raw material that feeds artificial intelligence. ()
- 17 User Experience (UX) design is considering how people use an application or website and whether they can easily find what they need. ()

- 18 The principle of easy navigation means that the users can reach what they are looking for slowly and carefully to ensure that no mistakes are made. ()
- 19 To design a new educational website or game, you must consider every step the player will take and how they will feel while playing. ()
- 20 Consistency in interface design means keeping the same style and appearance for buttons and elements throughout the application or website. ()
- 21 User Experience (UX) only refers to the quality of services provided by websites and does not include applications. ()
- 22 The principle of clarity in the interface requires presenting information in an easily understandable way. ()
- 23 The layout of a design for a website or application interface means organizing the interface elements in a way that makes it easier to use. ()
- 24 When you enter a restaurant to eat, the restaurant's decor, colors, and interface are UX, while the quality of the food is UI. ()
- 25 Using decorative fonts frequently improves the clarity of text in UI design. ()
- 26 Ease of use does not affect user satisfaction with the digital product. ()
- 27 The principle of ease of navigation is one of the principles of UX design, which indicates the importance of helping the user easily find what they are looking for within the product. ()
- 28 A website's main menu with clear buttons is an example of a good navigation design. ()
- 29 User Interface (UI) design is concerned with making the product easy to use and effective. ()
- 30 A main menu with clear buttons is an example of a good navigation design. ()



Answers

1

1 c

2 d

3 b

4 d

5 c

6 d

7 a

8 b

9 c

10 c

11 d

12 b

13 c

14 b

15 b

16 d

17 c

18 b

19 b

20 b

21 b

22 c

23 c

24 b

25 c

2

1 ✓

2 ✓

3 ✓

4 ✗

5 ✓

6 ✗

7 ✓

8 ✗

9 ✓

10 ✓

11 ✓

12 ✗

13 ✓

14 ✓

15 ✓

16 ✗

17 ✓

18 ✗

19 ✓

20 ✓

21 ✗

22 ✓

23 ✓

24 ✓

25 ✗

26 ✗

27 ✓

28 ✓

29 ✗

30 ✓



Exercises

on Lesson 4

1 Choose the correct answer:

- 1 Data is the first stage of big data processing.
a. storage b. collection c. cleaning d. analysis
- 2 Which of the following creates algorithms that mimic human intelligence?
a. AI b. Physics c. Biology d. History
- 3 Removing errors and duplication is called data
a. storage b. analysis c. cleaning d. extraction
- 4 In big data processing, comes next after data analysis.
a. data collection b. data cleaning
c. information extraction d. data storage
- 5 big data storage usually happens in
a. clouds b. servers c. USB d. a or b
- 6 creates algorithms that mimic human intelligence.
a. AI b. IoT
c. E-commerce d. None of them
- 7 Predicting future weather using big data is an example of
a. cybersecurity b. machine learning
c. NLP d. cleaning
- 8 platforms use big data to adjust prices and improve sales.
a. E-commerce b. AI
c. Cybersecurity d. None of them
- 9 A machine learning model trained on more data will usually
a. learn slower b. be less accurate
c. be more accurate d. forget patterns
- 10 NLP applications require processing
a. images b. text datasets
c. maps d. audio only
- 11 Big data improves AI by reducing the
a. cost b. collection c. storage d. overfitting

- 12 Predicting customer behavior with AI is called
- cleaning
 - extraction
 - predictive analytics
 - storage
- 13 Which best describes the relationship between big data and AI?
- AI creates raw data.
 - Big data depends on AI fully.
 - Big data feeds AI, and AI extracts value.
 - They are unrelated.

2 Put (T) or (F):

-  Big data has no role in the development and effectiveness of artificial intelligence. ()
-  AI technologies help in processing and analyzing big data. ()
-  One of the stages of big data processing is data cleaning. ()
-  The data collection stage is the process of collecting large amounts of data from various sources. ()
-  The process of processing big data does not require storing that data. ()
-  Data cleaning means dealing with errors, duplication, or incorrect data. ()
-  Data analysis occurs using advanced tools and techniques, such as artificial intelligence. ()
-  Information extraction takes place before data analysis. ()
-  E-commerce platforms rely on big data to understand the customer behavior. ()
-  Big data does not allow models to be trained on a wide range of scenarios and conditions. ()
-  Computer vision applications, such as face recognition and object detection, do not require massive datasets of images and videos to train their models. ()
-  The role of big data in AI is to improve accuracy and performance and enable AI applications. ()

- 13  Advanced AI applications include predictive analytics and computer vision. ()
- 14  AI does not use big data to understand customer interactions with products and services. ()
- 15  Big data helps machine learning algorithms recognize patterns and make decisions without human interference. ()
- 16  Big data improves task automation in areas such as customer service, logistics, and finance. ()
- 17  Big data is not the raw material that feeds artificial intelligence. ()
- 18  AI is just a set of theoretical algorithms that are incapable of learning or delivering real value without big data. ()

3 Complete in the blanks:

- 1 AI requires to operate and learn.
- 2 The first stage of big data processing is
- 3 Data cleaning deals with,, or incorrect data.
- 4 Big data helps monitor networks and cybersecurity to detect security
- 5 Once collected, data is in large databases.
- 6 platforms rely on big data to understand customer behavior.
- 7 Big data enables models to be trained on a wide range of and conditions.
- 8 models, such as, require processing very large text datasets.
- 9 Computer vision relies on massive datasets of and to train models.
- 10 Information extraction takes place after
- 11 Predictive analytics uses to make accurate predictions.
- 12 can discover valuable insights and hidden patterns from big data.



1 Choose the correct answer:

- 1 What is the primary focus of User Experience (UX) design?
 - a. The visual appeal of the design.
 - b. The website's loading speed.
 - c. The colors and fonts used in the design.
 - d. The usability and effectiveness of the product.
- 2 What is the primary focus of User Interface (UI) design?
 - a. Ease of navigation within the application.
 - b. User satisfaction with the product.
 - c. The visual appeal of the product.
 - d. The logical organization of information.
- 3 If an app or website is easy to use, it leads to user
 - a. Frustration b. Confusion c. Satisfaction d. Abandonment
- 4 Which of the following is a fundamental principle of User Experience (UX) design?
 - a. Using decorative fonts to attract attention.
 - b. Providing clear and easy navigation for the user.
 - c. Using as many colors as possible.
 - d. Placing as much information on a single page as possible.
- 5 Presenting information in an easy-to-understand way refers to interface
 - a. consistency b. navigation c. clarity d. responsiveness

- 6 Which of the following is a fundamental principle of User Interface (UI) design?
- Making all buttons the same size and shape.
 - Choosing colors that are consistent and pleasing to the eye.
 - Providing multiple ways to accomplish the same task.
 - Ensure that all text is unreadable.
- 7 What does the principle of "consistency" mean in UX/UI design?
- Using different elements on each page to make it stand out.
 - Maintaining a consistent style for elements throughout the product.
 - Changing the website design frequently to keep users interested.
 - Using random fonts and colors.
- 8 Why is usability important in UX design?
- To make the design look more professional.
 - To increase user satisfaction and interaction with the product.
 - To reduce the cost of product development.
 - To make the product run faster.
- 9 A main menu with clear buttons is an example of good
- navigation design
 - confusing navigation
 - unorganized items
 - inconsistent colors
- 10 Why is visual appeal important in UI design?
- To make the product easy to use.
 - To leave a good first impression with the user.
 - To better organize information.
 - To make the product compatible with all devices.

- 11 Interface fonts should be
- a. complex and decorative
 - b. small and ornate
 - c. legible and appropriate to context
 - d. difficult to read
- 12  Which of the following examples illustrates a confusing navigation design?
- a. A main menu with clear buttons.
 - b. A search bar in a prominent location.
 - c. A list of overlapping, unorganized items.
 - d. Clear links at the end of the page.
- 13 The design that makes using a website easy and convenient is
- a. User Experience (UX)
 - b. User Interface (UI)
 - c. Web page format
 - d. digital project
- 14  Which of the following examples illustrates the use of inconsistent colors in UI design?
- a. Using simple color gradients.
 - b. Using many bright, different colors randomly.
 - c. Using complementary colors from the color wheel.
 - d. Using white as the primary color with a muted secondary color.

2 Put (T) or (F):

- 1  User Experience (UX) design focuses primarily on the appearance of the product, not how it is used. ()
- 2  User Interface (UI) design is concerned with making the product easy to use and effective. ()

- 3  One of the principles of UX design is to provide clear and easy navigation for the user. ()
- 4  Using decorative fonts extensively improves the legibility of text in UI design. ()
- 5  Consistency in design means using the same style for elements throughout the product. ()
- 6  Ease of use does not affect user satisfaction with the digital product. ()
- 7  The visual appeal of the UI can affect the user's first impression. ()
- 8  A main menu with clear buttons is an example of a good navigation design. ()
- 9  Using many different colors improves the aesthetics of the design. ()
- 10 User Experience (UX) is a design process aimed at making a digital product easy, useful, and enjoyable to use for the user. ()
- 11 User Interface (UI) is the process of designing the visual elements of an application or website in an attractive, organized, and easy-to-understand manner. ()
- 12 Clashing colors can make your site easy to read and visually distracting. ()
- 13 A principle in UX design refers to the importance of helping the user easily find what they are looking for within a product. ()
- 14 A principle in UI design refers to the importance of choosing harmonious and pleasing colors. ()
- 15 If the app buttons are too small to be easily pressed, this indicates a UX design problem. ()

3 Complete the following sentences:

- 1  User Experience (UX) design primarily focuses on making a product
.....
- 2  User Interface (UI) design primarily focuses on making a product and attractive.
- 3  A fundamental principle of UX design is providing a clear for the user to navigate between pages.
- 4  When choosing a for a user interface, it should be pleasing to the eye and easy to read.
- 5  Maintaining in the design of elements, such as buttons and icons, creates a sense of professionalism and consistency.

4 Write the scientific term:

- 1  It is a design process aimed at making a digital product easy, useful, and enjoyable to use for the user. (.....)
- 2  It is the process of designing the visual elements of an application or website in an attractive, organized, and easy-to-understand manner. (.....)
- 3  It is a principle in UX design that refers to the importance of helping the user to easily find what they are looking for within a product. (.....)
- 4  It is a principle in UI design that refers to the importance of choosing harmonious and pleasing colors. (.....)
- 5 It refers to how easy and effective a product is to use. It increases user satisfaction and interaction. (.....)

كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



حمل الآن

مجاناً وحصرياً

المراجعة رقم (2)

اختبار شهر نوفمبر



Lesson 4: Big Data and Its Relationship with Artificial Intelligence

1. The Connection between Big Data and AI

- Big data plays a **crucial role** in the development and effectiveness of Artificial Intelligence (AI).
- AI **needs big data** to learn and make accurate decisions.
- On the other hand, AI **helps analyze** and extract value from massive data sets.

2. Stages of Big Data Processing

1. Data Collection □

- Gathering large amounts of data from different sources such as IoT devices, social media, and financial records.

2. Data Storage □

- Storing collected data in large databases or cloud systems for easy access and analysis.

3. Data Cleaning □

- Removing errors, duplicates, or inaccurate information to ensure data quality.

4. Data Analysis ▤

- Using advanced tools and AI techniques to process and understand the data.

5. Information Extraction □

- Converting analyzed data into valuable insights to support decision-making.

3. Uses of Big Data

• □ Artificial Intelligence:

- AI uses big data to simulate human intelligence in tasks such as pattern recognition, speech, and logical reasoning.

• □ Machine Learning and Deep Learning:

- Big data is used to train models that improve over time.
- Example: Weather forecasting, predicting trends, recognizing images.

• ♡ □ Cybersecurity and Network Monitoring:



Big data helps detect threats and protect systems from cyberattacks.

- **E-Commerce:**

- Online platforms use big data to analyze customer behavior, recommend products, and adjust prices.

4. The Role of Big Data in Advancing AI

- **a. Improving Accuracy and Performance:**

- The larger the data, the more AI can learn and make accurate decisions.

- **b. Enabling Advanced AI Applications:**

- **Natural Language Processing (NLP):** AI models like GPT need huge amounts of text data to understand and generate human language.
- **Computer Vision:** AI uses large datasets of images and videos to detect faces and objects.
- **Predictive Analytics:** AI analyzes historical data to predict future trends (e.g., customer behavior, market trends).

- **c. Discovering Hidden Patterns:**

- AI can identify insights and patterns that traditional tools might miss, supporting strategic decision-making.

- **d. Continuous Learning and Adaptation:**

- Real-time data streams allow AI systems to learn and improve constantly.

- **e. Enhancing User Experience and Automating Tasks:**

- AI uses big data to personalize recommendations and automate tasks in customer service, logistics, and finance.

✓ Summary:

- Big data is the **fuel that powers AI**.
- Without big data, AI would be just a set of algorithms with no learning ability.
- AI uses big data to **analyze, predict, learn, and act intelligently**.
- This combination is shaping a smarter, more efficient future in many fields.

Lesson 4 Questions □ Model 1**A. True or False (8 Questions)**

1. Big Data helps Artificial Intelligence learn better. ()
2. AI cannot analyze Big Data. ()
3. AI can use data to make predictions. ()
4. Data cleaning is an important step in data processing. ()
5. Big Data and AI are not connected. ()
6. Machine learning uses Big Data for training models. ()
7. AI can discover hidden patterns in data. ()
8. Big Data supports better decision-making. ()

B. Complete the Sentence (7 Questions)

1. Big Data is the _____ of Artificial Intelligence.
a) enemy b) fuel c) problem d) waste
2. Data processing starts with data _____.
a) burning b) eating c) collection d) cleaning
3. AI can analyze Big Data to make _____.
a) stories b) predictions c) drawings d) sounds
4. Data _____ removes errors and duplicates.
a) cleaning b) playing c) breaking d) eating
5. Machine learning uses Big Data to _____ models.
a) hide b) draw c) train d) break
6. AI can find _____ patterns in data.
a) hidden b) shoes c) pens d) broken
7. Big Data and AI help in better _____ making.
a) chair b) decision c) food d) animal



A. True or False (8 Questions)

1. Big Data plays a key role in AI development. ()
2. AI can turn data into useful information. ()
3. Machine learning does not need data. ()
4. Data cleaning helps improve data quality. ()
5. Predictive analytics uses AI to forecast future trends. ()
6. AI and Big Data together improve decision-making. ()
7. Big Data analysis has no benefits. ()
8. AI can learn from real-time data. ()

B. Complete the Sentence (7 Questions)

1. AI needs Big Data to _____ accurately.
a) guess b) learn c) sleep d) walk
2. Big Data is processed through several _____.
a) doors b) steps c) games d) songs
3. AI uses data to make smart _____.
a) doors b) decisions c) trees d) pens
4. Predictive analytics helps to _____ future trends.
a) dance b) cook c) predict d) cry
5. Machine learning improves as it gets more _____.
a) paper b) data c) wood d) water
6. Cleaning data removes _____ and errors.
a) cars b) mistakes c) clothes d) shoes
7. Big Data and AI make systems more _____.
a) intelligent b) slow c) weak d) noisy

Unit 2 – Lesson 1: Principles of Designing Attractive and Professional Website Interfaces

1. Introduction

- In this lesson, we learn how to design website and application interfaces.
- A **good interface** makes users feel comfortable and helps them find what they need easily.
- A **poor interface** makes users confused or frustrated and may push them to leave the site.

2. User Experience (UX) Design

Definition:

- UX design is about **how the user feels** when using a website or app.
- It focuses on making the experience **easy, clear, and enjoyable**.

Example:

- If you search for a book in a **well-organized library**, it's easy to find.
- If the books are **scattered randomly**, you'll feel lost and frustrated.
- This is the difference between good and bad UX.

Importance of UX:

- If the website is easy to use → users return.
- If it's difficult to use → users leave and never come back.

3. Basic Principles of Good UX Design

- **Easy Navigation:**
 - Users should be able to find what they need quickly.
 - Example: A clear main menu with simple categories like “Home – Books – Contact.”

- ✦ **Clarity:**

- The interface should present information in a simple and understandable way.
- Example: Large, clean fonts are easier to read than small, fancy fonts.

- **Consistency:**

- All parts of the site should have a similar style (same colors, fonts, and button shapes).
- This helps users feel familiar with the interface.

4. User Interface (UI) Design

Definition:

- UI design focuses on **what the website looks like** — the colors, buttons, fonts, and layout.
- It is the **visual side** of the site that users see and interact with.

Example:

- If the buttons are too small or the colors are confusing, the user experience will be poor.
- A clear and beautiful interface makes the site more attractive.

Importance of UI:

- A beautiful design creates a **good first impression**.
- The look of the interface can **encourage users to stay** on the site.

5. Main Principles of UI Design

- 🎨 **Colors:**

- Choose colors that match and make the site comfortable to look at.
- Example: Blue and gray look calm and professional.

Bright, harsh colors can be distracting.



- ✎ □ **Fonts:**

- Fonts must be easy to read and appropriate for the site.
- Example: Simple fonts are better than complex, decorative ones.

- **Layout:**

- Organize elements clearly on the page.
- Example: A page divided into sections (Home – News – Articles) is easier to navigate than a crowded page.

6. UX vs. UI

UX (User Experience)

UI (User Interface)

How the user **feels** while using the site How the site **looks** visually

Focus on ease, clarity, and satisfaction Focus on colors, fonts, and layout

Example: easy-to-find information

Example: attractive, clear design

✎ Example:

- In a restaurant, **UX** is the quality of the food and service.
- **UI** is the decoration and the look of the restaurant.

7. Examples of Good Websites

- 🌐 Google → Simple and easy to use.
- 📺 YouTube → Attractive and easy to navigate.
- Over time, interfaces have become **simpler and more user-friendly**.

✓ Summary:

- UX focuses on **user comfort and ease of use**.
- UI focuses on **design and appearance**.
- A good website combines both UX and UI to give users an enjoyable and clear experience.

• Good design encourages users to stay, explore, and return again.

Lesson 1 Questions Model 1

A. True or False (8 Questions)

1. A good website interface makes users feel comfortable. ()
2. UX means “User Interface.” ()
3. A poor interface can make users leave the site. ()
4. UI focuses on the visual design of the website. ()
5. UX design is about how the website looks only. ()
6. Consistency in colors and fonts is important in design. ()
7. UI design affects the first impression of users. ()
8. Easy navigation is a key principle of good UX. ()

B. Complete the Sentence (7 Questions)

1. UX stands for _____ Experience.
a) User b) Unit c) Useful d) Unique
2. A good interface helps users feel _____.
a) lost b) confused c) comfortable d) angry
3. UI focuses on how the website _____.
a) cooks b) smells c) looks d) eats
4. Consistency means using the same _____ and fonts.
a) colors b) shoes c) tables d) names
5. Easy _____ helps users find information quickly.
a) dancing b) navigation c) sleeping d) calling
6. UX is about how the user _____.
a) walks b) feels c) sings d) sleeps
7. UI design creates a good first _____.
a) message b) impression c) error d) mistake

A. True or False (8 Questions)

1. UX focuses on the user's experience. ()
2. UI has nothing to do with colors. ()
3. A confusing interface can make users leave. ()
4. Consistency makes a website easier to use. ()
5. Fonts are not important in web design. ()
6. UI and UX are two different but related concepts. ()
7. UI focuses on the look of the website. ()
8. UX helps improve user satisfaction. ()

B. Complete the Sentence (7 Questions)

1. UI stands for _____ Interface.
a) User b) Useful c) Unit d) Unique
2. UX focuses on how the user _____ the website.
a) fights b) experiences c) forgets d) runs
3. Colors and _____ affect the design.
a) fonts b) cars c) bags d) pens
4. A good website must be easy to _____.
a) wash b) navigate c) break d) hide
5. A confusing interface can make users _____.
a) stay b) return c) leave d) jump
6. UI and UX work _____ to make a good website.
a) separately b) together c) slowly d) badly
7. Fonts must be easy to _____.
a) read b) cook c) drive d) play

حمل الآن

مجاناً وحصرياً

المراجعة رقم (3)

اختبار شهر نوفمبر



Lesson 4: Big Data and Its Relationship to Artificial Intelligence

Artificial intelligence requires big data to operate and learn.

AI techniques help process and analyze massive amounts of data and extract value from it.

Big data is the raw material upon which AI thrives. Without it, **AI** would be nothing more than a set of theoretical algorithms, incapable of learning or delivering real value.

AI helps transform raw data into strategic information that helps make informed decisions and gain a competitive advantage.



Stages of Big Data Processing

1 - Big Data Collection

This is the process of collecting massive amounts of data from the sources mentioned above.

2 - Data Storage

Data is stored in large databases, which can be on servers or cloud systems.

3 - Data Cleaning

Collected data may contain errors, duplication, or incorrect data.

It must be cleaned and verified.

4 -Data Analysis

Data must be analyzed using advanced tools and techniques **such as** artificial intelligence and machine learning.

5- Information Extraction

Valuable information is extracted that can be used to improve operations or make strategic decisions.

Uses of Big Data

1 -Artificial Intelligence (AI)

It is a branch of information systems science that creates and designs algorithms that mimic human intelligence.



It enables computers to perform certain tasks instead of humans, **such as** pattern recognition, speech, hearing, movement, and logical reasoning.

2 -Machine Learning and Deep Learning:

Big data is used to train models that can improve their performance over time.

The greater the quality, volume, and variety of data available, the greater the ability of these models to learn and provide accurate predictions and decisions.

Example: Machine learning is used to predict future events such as weather.

3 -Network Monitoring and Cybersecurity

Big data is used to monitor network traffic and analyze patterns to detect security threats and protect systems from attacks.

4 -E-Commerce

E-commerce platforms rely on big data to understand customer behavior, improve recommendations, adjust prices, and achieve higher sales using advanced analytics.

The Role of Big Data in Artificial Intelligence:

A - Improving Accuracy and Performance:

- Big data enables models to be trained on a wide range of scenarios and conditions.
- It improves their ability to generalize and reduces the overfitting problem, thus increasing their accuracy and effectiveness in the real world.

B - Enabling Advanced AI Applications:

1 - Natural Language Processing (NLP):

- Natural language processing models require large language models like **GPT**.
- They handle very large text datasets to learn to understand and accurately generate human language.

2 -Computer Vision

Computer vision applications, such as face recognition and object detection, rely on massive datasets of images and videos to train their models.



3 -Predictive Analytics:

Big Data enables AI to analyze massive amounts of historical data to identify patterns and trends, allowing for accurate predictions about future events, **such as** customer behavior or market trends.

4 -Discovering Hidden Insights and Patterns:

- Thanks to AI's ability to process and analyze big data, businesses and organizations can discover valuable insights and hidden patterns that are difficult for traditional tools to identify.

- These insights can lead to innovative strategic decisions.

For example, in healthcare, big data from medical records can be analyzed to identify patterns that help diagnose diseases and develop personalized treatment plans.

5- Continuous Learning and Adaptation:

- Real-time, massive data streams allow AI models to continuously learn and adapt to new data.

- They improve their performance over time based on incoming information.



6 - Improving User Experience and Automating Tasks:

- Artificial intelligence uses big data to understand customer interactions with products and services, enabling it to provide personalized recommendations and content tailored to their interests.

- Big data helps machine learning algorithms recognize patterns and make decisions without human intervention, leading to the automation of tasks in areas **such as** customer service, logistics, and finance.

*** Task automation** is the use of technology to perform repetitive tasks automatically without the need for human intervention.

Exercises for Lesson 4

Mark (✓) the correct statement and mark (×) the incorrect statement.

- 1 -Big data has no role in the development and effectiveness of artificial intelligence() .
- 2 -Artificial intelligence techniques help in processing and analyzing big data() .
- 3 -One of the stages of processing big data is data cleaning() .
- 4 -The data collection stage is the process of collecting large amounts of data from various sources() .
- 5 -The process of processing big data does not require storing that data() .
- 6 -Data cleaning means dealing with duplicate errors or incorrect data() .
- 7 -Data analysis using advanced tools and techniques such as artificial intelligence() .
- 8 -Information extraction takes place before data analysis() .
- 9 -Machine learning and deep learning do not require big data() .
- 10 -Big data is used to monitor networks and ensure cybersecurity() .
- 11 -E-commerce platforms rely on big data to understand customer behavior() .
- 12 -Big data does not allow models to be trained on a wide range of scenarios and conditions() .
- 13 -Computer vision applications, such as face recognition and object detection, do not require large datasets of images and videos to train their models() .
- 14 -The role of big data in artificial intelligence is to improve accuracy and performance and enable artificial intelligence applications() .
- 15 -Advanced applications of artificial intelligence include predictive analytics and computer vision() .
- 16 -Artificial intelligence does not use big data to understand customer interactions with products and services() .
- 17 -Big data helps machine learning algorithms recognize patterns and make decisions without human intervention() .
- 18 -Big data improves the automation of tasks in areas such as customer service, logistics, and finance() .

19- Big data is not the raw material upon which artificial intelligence is fed. ()

Complete the following sentences:

1 .Big data helps artificial intelligence to.....

2 .Computer vision applications rely on massive data sets of to train their models.

3 .The first stage of data processing is.....

4 .The GPT model is used in.....

5 .Increasing data volume increases the ability of models to.....

6 is considered the raw material for artificial intelligence.

7 .Big data is used to monitor network traffic and analyze patterns to detect security threats and protect systems from attacks. This is known as.....

8 .After analyzing the data, reliable and accurate information is produced.

9 is a branch of information systems science that enables the creation and design of algorithms that mimic human intelligence methods.

10. is the use of technology to perform repetitive tasks automatically without human intervention.

Unit 2

Lesson 1

Principles of Designing Attractive, Professional Website Interfaces



User Experience (UX) Design Concept:

- It's about considering how people use an application or website, easily finding what they need, and feeling happy while using it.
- It's the design that makes using the website easy and comfortable.

Importance of User Experience (UX) Design:

- If the application or website is easy to use, the user will feel satisfied and will return to use it again.
- If it's difficult, the user may abandon the website permanently.

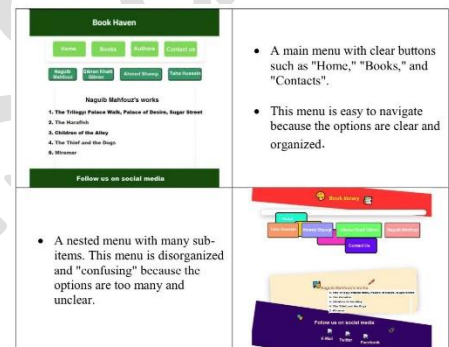
Basic Principles to Consider in UX Design:

1 .Ease of Navigation:

- This means that the user can reach what they are looking for quickly and effortlessly.

Examples:

- A simple main menu with clear buttons and multiple organized options.
- A menu with overlapping sub-items is disorganized and confusing because the options are numerous and unclear.



2 .Clarity:

- Interface clarity means presenting information in an easy-to-understand way.

Examples:

- ✓ Text written in a clear, large font that is easy to read.
- ✗ Text written in a small, decorative font that is difficult to read and frustrating.



3 .Consistency:

- Interface consistency means maintaining the same style throughout the application or website.

Examples:

- ✓ Buttons appear familiar to the user, with the same shape and color everywhere.
- ✗ Buttons confuse the user because they are inconsistent in shape and color.

The buttons confuse the user because they are inconsistent, with different shapes and colors.



User Interface (UI) Design Concept



- The UI is the visual representation of a website, application, or game that users see and interact with in an attractive, organized, and easy-to-understand way.

✗ If UI elements are unclear, this indicates a problem in the UI design.

Importance of the User Interface (UI):

✓ Visual Appeal: A beautiful interface makes a good impression.

✗ However, a disorganized design will not appeal to users.

Basic Principles of User Interface Design

1 .Colors:

Choosing the right colors affects the user's mood.

Examples:

✓ A harmonious color, such as blue and gray.

✓ Colors appear calm and relaxing.

✗ Bright colors, such as red, yellow, and purple.

✗ Colors can be distracting and disruptive.



A harmonious color scheme such as blue and gray. The colors look calm and relaxing.

Bright colors like red, yellow, and purple are annoying and distracting.



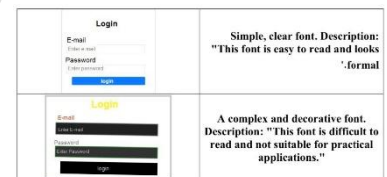
2 .Fonts:

The UI fonts should be legible and appropriate for the context.

Examples:

✓ A simple and clear font is easy to read and appears professional.

✗ A complex and decorative font is difficult to read and unsuitable for practical applications.



Simple, clear font. Description: "This font is easy to read and looks 'formal'."

A complex and decorative font. Description: "This font is difficult to read and not suitable for practical applications."

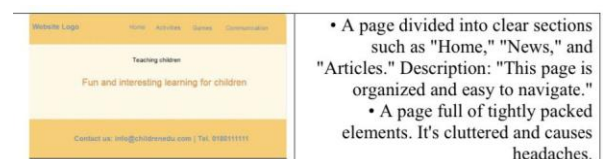
3. Layout

Organizing the interface elements logically makes the application or website easy to use.

Examples:

✓ A page divided into clear sections is organized and easy to navigate.

✗ A page cluttered with overlapping elements is crowded and causes headaches.



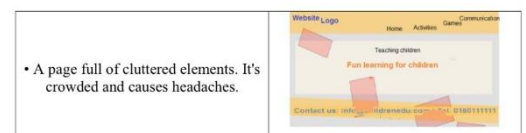
• A page divided into clear sections such as "Home," "News," and "Articles." Description: "This page is organized and easy to navigate."
• A page full of tightly packed elements. It's cluttered and causes headaches.

Examples of good websites:

Google :

simple and easy to use; you can quickly find what you need.

YouTube : features an attractive and easy-to-navigate design.



• A page full of cluttered elements. It's crowded and causes headaches.

Exercises

Choose the correct answer from the following:

1 -What is the primary focus of User Experience (UX) design?

- a) The visual appeal of the design.
- b) The usability and effectiveness of the product.
- c) The colors and fonts used in the design.
- d) The website's loading speed.

2 -What is the primary focus of User Interface (UI) design?

- a) Ease of navigation within the application.
- b) User satisfaction with the product.
- c) The visual appeal of the product.
- d) The logical organization of information.

3 -Which of the following is a fundamental principle of User Experience (UX) design?

- a) Using decorative fonts to attract attention.
- b) Providing clear and easy navigation for the user.
- c) Using as many colors as possible.
- d) Placing as much information on a single page as possible.

4 -Which of the following is a fundamental principle of User Interface (UI) design?

- a) Making all buttons the same size and shape.
- b) Choosing colors that are consistent and pleasing to the eye.
- c) Providing multiple ways to accomplish the same task.
- d) Ensure that all text is unreadable.

5 -What does the principle of "consistency" mean in UX/UI design?

- a) Use different elements on each page to make it stand out.
- b) Maintain a consistent style for elements throughout the product.
- c) Change the website design frequently to keep users interested.
- d) Use random fonts and colors.

6 -Why is usability important in UX design?

- a) To make the design look more professional.
- b) To increase user satisfaction and interaction with the product.
- c) To reduce the cost of product development.
- d) To make the product run faster.

7 -Why is visual appeal important in UI design?

- a) To make the product easy to use.
- b) To leave a good first impression with the user.
- c) To better organize information.
- d) To make the product compatible with all devices.

8 -Which of the following examples illustrates a confusing navigation design?

- a) A main menu with clear buttons.
- b) A search bar in a prominent location.
- c) A list of overlapping, unorganized items.
- d) Clear links at the end of the page.

9 -Which of the following examples illustrates the use of inconsistent colors in UI design?

- a) Using simple color gradients.
- b) Using complementary colors from the color wheel.
- c) Using many bright, different colors randomly.
- d) Using white as the primary color with a muted secondary color.

Put (✓) or (×) :

1 .User Experience (UX) design focuses primarily on the appearance of the product, not how it is used() .

2 .User Interface (UI) design is concerned with making the product easy to use and effective() .

3 .One of the principles of UX design is to provide clear and easy navigation for the user() .

4 .Using decorative fonts extensively improves the legibility of text in UI design() .
Consistency in design means using the same style for elements throughout the product() .

5 .Ease of use does not affect user satisfaction with the digital product() .

6 .The visual appeal of the UI can affect the user's first impression() .

7 .A main menu with clear buttons is an example of good navigation design() .

8 .Using many different colors in an organized manner improves the aesthetics of the design() .

Complete the following sentences:

1-User Experience (UX) design primarily focuses on making a product
.....easy to use

2-User Interface (UI) design primarily focuses on making a product
..... attractive.

3-A fundamental principle of UX design is providing a clear..... for
the user to navigate between pages.

4-When choosing a..... for a user interface, it should be
pleasing to the eye and easy to read.

5-Maintaining in the design of elements such as buttons and
icons creates a sense of professionalism and consistency.

Terminology:

- 1 .A design process aimed at making a digital product easy, useful, and enjoyable to use for the user.(.....)
- 2 .The process of designing the visual elements of an application or website in an attractive, organized, and easy-to-understand manner.(.....)
- 3 .A principle in UX design that refers to the importance of helping the user easily find what they are looking for within a product.(.....)
4. A principle in UI design that refers to the importance of choosing harmonious and pleasing colors.(.....)

حمل الآن

مجاناً وحصرياً

المراجعة رقم (4)

اختبار شهر نوفمبر



Question1: Choose the correct answer

1. Data _____ is the first stage of big data processing.
 - a. storage
 - b. collection
 - c. cleaning
 - d. analysis
2. Which of the following creates algorithms that mimic human intelligence?
 - a. AI
 - b. Physics
 - c. Biology
 - d. History
3. Removing errors and duplication is called data _____.
 - a. storage
 - b. analysis
 - c. cleaning
 - d. extraction
4. In big data processing, _____ comes next after data analysis.
 - a. data collection
 - b. data cleaning
 - c. information extraction
 - d. data storage
5. Big data storage usually happens in _____.
 - a. clouds
 - b. servers
 - c. USB
 - d. a or b



6. _____ creates algorithms that mimic human intelligence.

- a. AI
- b. IoT
- c. E-commerce
- d. None of them

7. Predicting future weather using big data is an example of _____.

- a. cybersecurity
- b. machine learning
- c. NLP
- d. cleaning

8. _____ platforms use big data to adjust prices and improve sales.

- a. E-commerce
- b. AI
- c. Cybersecurity
- d. None of them

9. A machine learning model trained on more data will usually _____.

- a. learn slower
- b. be less accurate
- c. be more accurate
- d. forget patterns

10. NLP applications require processing _____.

- a. images
- b. text datasets
- c. maps
- d. audio only



11. Big data improves AI by reducing the _____.

- a. cost
- b. collection
- c. storage
- d. overfitting

12. Predicting customer behavior with AI is called

- a. cleaning
- b. extraction
- c. predictive analytics
- d. storage

13. Which best describes the relationship between big data and AI?

- a. AI creates raw data.
- b. Big data depends on AI fully.
- c. Big data feeds AI, and AI extracts value.
- d. They are unrelated.

14. What is the primary focus of User Experience (UX) design?

- a. The visual appeal of the design.
- b. The website's loading speed.
- c. The colors and fonts used in the design.
- d. The usability and effectiveness of the product.

15. What is the primary focus of User Interface (UI) design?

- a. Ease of navigation within the application.
- b. User satisfaction with the product.
- c. The visual appeal of the product.
- d. The logical organization of information.



16.If an app or website is easy to use, it leads to user _____.

- a. Frustration
- b. Confusion
- c. Satisfaction
- d. Abandonment

17.Which of the following is a fundamental principle of User Experience (UX) design?

- a. Using decorative fonts to attract attention.
- b. Providing clear and easy navigation for the user.
- c. Using as many colors as possible.
- d. Placing as much information on a single page as possible.

18.Presenting information in an easy-to-understand way refers to interface _____.

- a. consistency
- b. navigation
- c. clarity
- d. responsiveness

19.Which of the following is a fundamental principle of User Interface (UI) design?

- a. Making all buttons the same size and shape.
- b. Choosing colors that are consistent and pleasing to the eye.
- c. Providing multiple ways to accomplish the same task.
- d. Ensure that all text is unreadable.

20.What does the principle of “consistency” mean in UX/UI design?

- a. Using different elements on each page to make it stand out.
- b. Maintaining a consistent style for elements throughout the product.
- c. Changing the website design frequently to keep users interested.
- d. Using random fonts and colors.



21. Why is usability important in UX design?

- a. To make the design look more professional.
- b. To increase user satisfaction and interaction with the product.
- c. To reduce the cost of product development.
- d. To make the product run faster.

22. A main menu with clear buttons is an example of good _____.

- a. navigation design
- b. confusing navigation
- c. unorganized items
- d. inconsistent colors

23. Why is visual appeal important in UI design?

- a. To make the product easy to use.
- b. To leave a good first impression with the user.
- c. To better organize information.
- d. To make the product compatible with all devices.

24. Interface fonts should be _____.

- a. complex and decorative
- b. small and ornate
- c. legible and appropriate to context
- d. difficult to read

25. Which of the following examples illustrates a confusing navigation design?

- a. A main menu with clear buttons.
- b. A search bar in a prominent location.
- c. A list of overlapping, unorganized items.
- d. Clear links at the end of the page.



26.The design that makes using a website easy and convenient is _____.

- a. User Experience (UX)
- b. User Interface (UI)
- c. Web page format
- d. digital project

27.Which of the following examples illustrates the use of inconsistent colors in UI design?

- a. Using simple color gradients.
- b. Using many bright, different colors randomly.
- c. Using complementary colors from the color wheel.
- d. Using white as the primary color with a muted secondary color.



Question 2 Put true or false

- 1- Big data has no role in the development and effectiveness of artificial intelligence. ()
- 2- AI technologies help in processing and analyzing big data. ()
- 3- One of the stages of big data processing is data cleaning. ()
- 4- The data collection stage is the process of collecting large amounts of data from various sources. ()
- 5- The process of processing big data does not require storing that data. ()
- 6- Data cleaning means dealing with errors, duplication, or incorrect data. ()
- 7- Data analysis occurs using advanced tools and techniques, such as artificial intelligence. ()
- 8- Information extraction takes place before data analysis. ()
- 9- E-commerce platforms rely on big data to understand the customer behavior. ()
- 10- Big data does not allow models to be trained on a wide range of scenarios and conditions. ()
- 11- Computer vision applications, such as face recognition and object detection, do not require massive datasets of images and videos to train their models. ()
- 12- The role of big data in AI is to improve accuracy and performance and enable AI application ()
- 13- User Experience (UX) design focuses primarily on the appearance of the product, not how it is used. ()
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- 16- Using decorative fonts extensively improves the legibility of text in UI design. ()



- 17- Consistency in design means using the same style for elements throughout the product. ()
- 18- Ease of use does not affect user satisfaction with the digital product. ()
- 19- The visual appeal of UI can affect the user's first impression. ()
- 20- A main menu with clear buttons is an example of a good navigation design. ()
- 21- Using many different colors improves the aesthetics of the design. ()
- 22- User Experience (UX) is a design process aimed at making a digital product easy, useful, and enjoyable to use for the user. ()
- 23- User Interface (UI) is the process of designing the visual elements of an application or website in an attractive, organized, and easy-to-understand manner. ()
- 24- Clashing colors can make your site easy to read and visually distracting. ()
- 25- A principle in UX design refers to the importance of helping the user easily find what they are looking for within a product. ()
- 26- A principle in UI design refers to the importance of choosing harmonious and pleasing colors. ()
- 27- If the app buttons are too small to be easily pressed, this indicates a UX design problem. ()



Question1: Choose the correct answer.

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- c. Web page format
- d. digital project

27.Which of the following examples illustrates the use of inconsistent colors in UI design?

- a. Using simple color gradients.
- b. Using many bright, different colors randomly.
- c. Using complementary colors from the color wheel.
- d. Using white as the primary color with a muted secondary color.



Question 2 Put true or false.

- 1- Big data has no role in the development and effectiveness of artificial intelligence. (F)
- 2- AI technologies help in processing and analyzing big data. (T)
- 3- One of the stages of big data processing is data cleaning. (T)
- 4- The data collection stage is the process of collecting large amounts of data from various sources. (T)
- 5- The process of processing big data does not require storing that data. (F)
- 6- Data cleaning means dealing with errors, duplication, or incorrect data. (T)
- 7- Data analysis occurs using advanced tools and techniques, such as artificial intelligence. (T)
- 8- Information extraction takes place before data analysis. (F)
- 9- E-commerce platforms rely on big data to understand the customer behavior. (T)
- 10- Big data does not allow models to be trained on a wide range of scenarios and conditions. (F)
- 11- Computer vision applications, such as face recognition and object detection, do not require massive datasets of images and videos to train their models. (F)
- 12- The role of big data in AI is to improve accuracy and performance and enable AI application (T)
- 13- User Experience (UX) design focuses primarily on the appearance of the product, not how it is used. (F)
- 14- User Interface (UI) design is concerned with making the product easy to use and effective. (F)
- 15- One of the principles of UX design is to provide clear and easy navigation for the user. (T)
- 16- Using decorative fonts extensively improves the legibility of text in UI design. (F)



- 17- Consistency in design means using the same style for elements throughout the product. (T)
- 18- Ease of use does not affect user satisfaction with the digital product. (F)
- 19- The visual appeal of UI can affect the user's first impression. (T)
- 20- A main menu with clear buttons is an example of a good navigation design. (T)
- 21- Using many different colors improves the aesthetics of the design. (F)
- 22- User Experience (UX) is a design process aimed at making a digital product easy, useful, and enjoyable to use for the user. (T)
- 23- User Interface (UI) is the process of designing the visual elements of an application or website in an attractive, organized, and easy-to-understand manner. (T)
- 24- Clashing colors can make your site easy to read and visually distracting. (F)
- 25- A principle in UX design refers to the importance of helping the user easily find what they are looking for within a product. (T)
- 26- A principle in UI design refers to the importance of choosing harmonious and pleasing colors. (T)
- 27- If the app buttons are too small to be easily pressed, this indicates a UX design problem. (F)



حمل الآن

مجاناً وحصرياً

اختيارات

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□ **Model 1**

◆ **Put True (✓) or False (x) :**

1. Big data is essential for artificial intelligence. ()
2. Cleaning data ensures accuracy and removes errors. ()
3. User experience (UX) is only about colors and fonts. ()
4. CSS allows consistent formatting across multiple web pages. ()
5. HTML alone can create highly formatted websites easily. ()
6. Google and YouTube have simple, easy-to-use interfaces. ()
7. Predictive analytics in AI does not use historical data. ()
8. Layout and navigation affect user satisfaction. ()



◆ **Choose the correct answer :**

1. The stage where raw data is organized and errors are removed is called___.
A) Data cleaning B) Data collection C) Analysis D) Storage
2. CSS helps to _____ multiple web pages at once
A) collect B) delete C) format D) ignore
3. User Interface (UI) is primarily about _____
A) appearance B) AI performance C) data storage D) server speed
3. Machine learning models improve as _____ increases
A) data size B) font size C) color contrast D) section height
4. An example of a good UX is when _____
A) the user finds information easily B) pages are cluttered
C) navigation is confusing D) buttons are tiny
5. In CSS, the property that centers text is _____
A) margin B) font-weight C) padding D) text-align
7. Big data helps AI to _____ hidden patterns
A) discover B) ignore C) delete D) hide





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□ **Model 2**

◆ **Put True (✓) or False (x) :**

1. AI uses big data to learn and make predictions. ()
2. Poorly organized menus can frustrate users. ()
3. UI and UX are exactly the same thing. ()
4. External CSS files can format many HTML pages simultaneously. ()
5. Big data is only used for entertainment. ()
6. Layout consistency improves readability and navigation. ()
7. Fonts and colors do not affect user experience. ()
8. Predictive analytics can forecast customer behavior. ()

◆ **Choose the correct answer :**

1. The process of gathering massive amounts of data is called ____
A) Data collection B) Data cleaning C) AI D) UI
2. Navigation in UX should be ____
A) confusing B) simple C) decorative D) hidden
3. A main benefit of using CSS is ____
A) manual repetition B) creating viruses
C) hacking data D) time-saving
4. UI design includes ____
A) buttons, colors, and fonts B) AI algorithms
C) server configuration D) predictive models
5. Predictive analytics in AI relies on ____
A) historical data B) random guesses C) font colors D) UI layouts
6. UX is focused on ____
A) user satisfaction B) CSS only C) HTML tags D) server speed
7. A well-structured page layout should be ____
A) mismatched B) cluttered C) confusing D) organized



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□ **Model 3**

◆ **Put True (✓) or False (x) :**

1. Big data enables AI to detect patterns and trends. ()
2. Machine learning requires large and diverse datasets. ()
3. The “container” class in CSS is used for AI calculations. ()
4. Fonts and layout do not influence website readability. ()
5. Cleaned data leads to more accurate AI predictions. ()
6. HTML files must be linked to CSS to apply formatting externally. ()
7. UX determines how easily a user can interact with a site. ()
8. Predictive models do not benefit from historical or big data. ()

◆ **Choose the correct answer :**

1. The AI field that recognizes images and objects is called ____
A) Computer vision B) NLP C) UX D) CSS
2. The HTML element used to create the page’s main container is ____
A) div B) h1 C) section D) footer
3. External CSS files use the ____ tag in HTML
A) script B) style C) link D) div
4. UX design focuses on ____
A) ease of use B) server speed C) file size D) data cleaning
5. The AI technique that improves performance over time is ____
A) Machine learning B) CSS C) UI D) HTML
6. In CSS, to change the background color of the body, use ____
A) font-weight B) text-align C) background-color D) border
7. A good UI uses ____
A) readable fonts B) cluttered text C) tiny buttons D) mismatched colors

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□ **Model 4**

◆ **Put True (✓) or False (x) :**

1. Big data supports AI in decision-making. ()
2. Overfitting happens when AI is trained with insufficient data. ()
3. HTML and CSS are programming languages. ()
4. User satisfaction is influenced by navigation clarity. ()
5. Inline CSS is preferred for large websites. ()
6. AI can automate tasks using big data patterns. ()
7. UX is only about visual design. ()
8. External CSS improves website loading speed. ()

◆ **Choose the correct answer :**

1. Big data can improve AI by providing ____
A) headers B) fonts C) navigation menus D) large datasets
2. The process of converting raw data into insights is called ____
A) analysis B) UX C) HTML D) CSS
3. UI elements include ____
A) algorithms B) datasets C) buttons D) server logs
4. Layout consistency ensures ____
A) AI predictions B) ease of use C) data storage D) user anonymity
5. CSS allows ____
A) unified formatting across multiple pages B) creating AI models
C) generating data D) sending emails
6. HTML is used for ____
A) structuring web page content B) AI analysis
C) CSS formatting D) UX testing
7. Predictive analytics can be applied in ____
A) color design B) font selection C) e-commerce D) padding

Name / Degree /

□ **Model 5**

◆ **Put True (✓) or False (x) :**

1. Big data is the raw material for AI. ()
2. AI cannot function without big data. ()
3. Poor color choices in UI do not affect user satisfaction. ()
4. External CSS allows centralized formatting. ()
5. UX is about making applications intuitive and easy to use. ()
6. HTML structuring alone ensures good UX. ()
7. CSS can control multiple pages with one file. ()
8. AI uses big data for continuous learning. ()

◆ **Choose the correct answer :**

1. To link an external CSS file, use the _____ tag
A) script B) div C) h1 D) link
2. The section in HTML that holds the main content is called _____
A) section B) header C) footer D) container
3. Predictive analytics in AI analyzes _____
A) fonts B) historical data C) colors D) CSS
4. UX focuses on _____
A) user comfort B) AI code C) database storage D) HTML tags
5. Machine learning models are trained using _____
A) UI B) CSS C) fonts D) big data
6. A good web layout should be _____
A) organized B) cluttered C) confusing D) random
7. UI aesthetics include _____
A) colors, fonts, and buttons B) datasets
C) AI predictions D) server logs

Computer and ICT – November Prep 2 (2025/2026) – Answer Key

Model 1

(True/False):

1.✓ 2.✓ 3.X 4.✓ 5.X 6.✓ 7.X 8.✓

(MCQs):

1.A 2.C 3.A 4.A 5.D 6.D 7.A

Model 2

(True/False):

1.✓ 2.✓ 3.X 4.✓ 5.X 6.✓ 7.X 8.✓

(MCQs):

1.A 2.B 3.D 4.A 5.A 6.A 7.D

Model 3

(True/False):

1.✓ 2.✓ 3.X 4.X 5.✓ 6.✓ 7.✓ 8. X

(MCQs):

1.A 2.A 3.C 4.A 5.A 6.C 7.A

Model 4

(True/False):

1.✓ 2.✓ 3.X 4.✓ 5.X 6.✓ 7.X 8.✓

(MCQs):

1.D 2.A 3.C 4.B 5.A 6.A 7.C

Model 5

(True/False):

1.✓ 2.✓ 3.X 4.✓ 5.✓ 6.X 7.✓ 8.✓

(MCQs):

1.D 2.A 3.B 4.A 5.D 6.A 7.A



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كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

